What is claimed is:

1. A pharmaceutical composition for improving brain functions comprising a triterpene compound represented by the Formula 1 as an active ingredient:

[Formula 1]

5

10

wherein R_1 , R_2 and R_4 are independently CH_3 and R_3 is H; R_1 and R_2 are independently CH_3 , R_3 is H and R_4 is CH_2OH ; or R_1 , R_3 and R_4 are independently CH_3 and R_2 is H.

2. An agent for improving brain functions, which comprises as an active ingredient a triterpene compound represented by the Formula 1: control [Formula 1]

wherein R_1 , R_2 and R_4 are independently CH₃ and R_3 is H; R_1 and R_2 are independently CH₃, R_3 is H and R_4 is CH₂OH; or R_1 , R_3 and R_4 are independently CH₃ and R_2 is H.

3. An agent for preventing and treating mild cognitive impairment and dementia, which comprises as an active ingredient a triterpene compound represented by the Formula 1:

[Formula 1]

10

15

wherein R_1 , R_2 and R_4 are independently CH_3 and R_3 is H; R_1 and R_2 are independently CH_3 , R_3 is H and R_4 is CH_2OH ; or R_1 , R_3 and R_4 are independently CH_3 and R_2 is H.

4. An agent for preventing and treating dementia comprising a triterpene compound represented by the Formula 1 as an active ingredient:

[Formula 1]

wherein R_1 , R_2 and R_4 are independently CH_3 and R_3 is H; R_1 and R_2 are independently CH_3 , R_3 is H and R_4 is CH_2OH ; or R_1 , R_3 and R_4 are independently CH_3 and R_2 is H.

5

5. A health food for improving brain functions comprising a triterpene compound represented by the Formula 1 as an active ingredient:

[Formula 1]

wherein R_1 , R_2 and R_4 are independently CH₃ and R_3 is H; R_1 and R_2 are independently CH₃, R_3 is H and R_4 is CH₂OH; or R_1 , R_3 and R_4 are independently CH₃ and R_2 is H.